The background of the entire page is a grayscale endoscopic view of a gastrointestinal tract. A HybridKnife, a specialized endoscopic tool, is visible on the left side, with its tip positioned to perform a peroral endoscopic myotomy (POEM). The tool has a black handle with a small light and a white shaft with a thin blade. The text 'erbe' is printed on the handle. The overall scene is dynamic, with curved, layered tissue structures.

erbe
power your performance.



**POEM –
Peroral Endoscopic
Myotomy**

using HybridKnife®

POEM

the new approach to achalasia therapy

In patients suffering from achalasia, peristaltic function in the lower esophagus is impaired, and reflexive relaxation of the lower esophageal sphincter during swallowing is limited or not present at all.

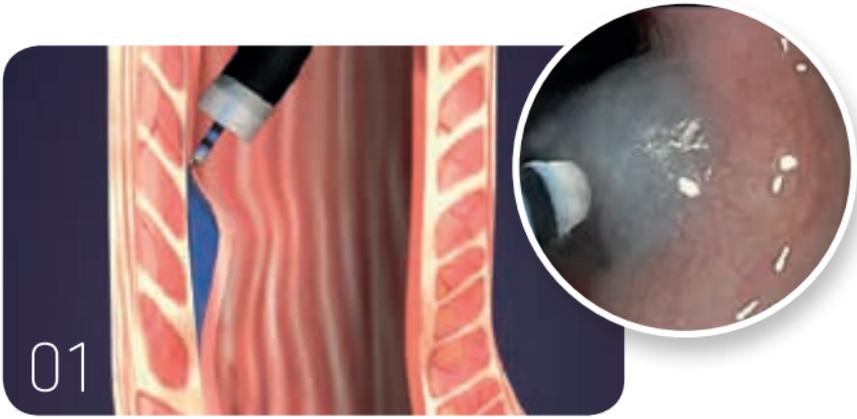
In addition to the invasive laparoscopic Heller myotomy, procedures used up until now include a number of non-invasive treatments that are rarely successful long-term and therefore often require repeated application.

POEM is a new endoscopic procedure that promises to offer treatment that is as successful and effective in the long-term as the invasive Heller myotomy – while putting considerably less strain on the patient. As is the case in laparoscopic procedures, POEM also involves myotomy of the sphincter in order to resolve peristaltic impairment of the esophagus.

Although long-term studies have not yet been completed, the initial results have been judged to be highly promising by POEM users. With POEM, the ability to swallow is restored on a long-term basis with a significant improvement in symptom scores.

HYBRIDKNIFE OPTIMIZES POEM

The multifunctional HybridKnife instrument not only supports the POEM procedure, it also simplifies the relevant steps. Thanks to the integrated electrosurgical and waterjet functions, both the time and effort required for surgery is reduced¹.

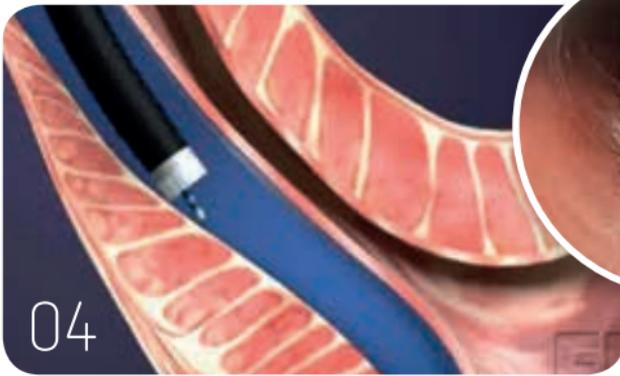


01 Mucosa elevation

The mucosa is lifted above the initial esophageal stenosis at the 2 o'clock position³ (alternative: 5 o'clock). As a result of the high-pressure waterjet elevation, layer-specific accumulation of the separation medium occurs beneath the mucosa, creating a submucosal cushion.

02 Mucosa incision

Using the electrosurgical function of the HybridKnife, the mucosa is opened to a length of approximately 2 cm⁽³⁾ at around 5 cm above the stenosis.



03 Creation of a submucosal tunnel

While alternating between the waterjet and the electro-surgical function of the HybridKnife, a submucosal tunnel is created. Thanks to the high-pressure waterjet, a protective layer is established to the mucosa which protects it from mechanical and thermal damage. The tunnel is prepared to approximately 2 cm below the gastroesophageal junction².

04 Myotomy

Using the HybridKnife, a myotomy is then performed of the sphincter, beginning at around 3 cm below the location of the incision up to approximately 2 cm beneath the gastroesophageal junction^{2,3,4}. Possible bleeding can be immediately coagulated using the HybridKnife. Following the myotomy, the cut is covered using the intact mucosa and the incision location closed using clips.

The equipment

NOT JUST FOR POEM

POEM is just one of the procedures to benefit from the gastroenterology workstation and the multifunctional probes provided by the Erbe HybridKnife range. Further applications include STER⁵ (submucosal tunneling endoscopic resection) and ESD (endoscopic submucosal dissection) for en bloc resection of early-stage carcinomas in the esophagus, stomach and intestines.

erbe-med.com

Gastroenterology workstation

*VIO® 200 D (electrosurgery)
APC® 2 (argon plasma coagulation)
ERBEJET® 2 (waterjet surgery)
EIP 2 (endoscopic irrigation pump)*



*HybridKnife T-type
Ø 2.3 mm; length 1.9 m
No. 20150-060*

*HybridKnife I-type
Ø 2.3 mm; length 1.9 m
No. 20150-061*

*HybridKnife O-type
Ø 2.3 mm; length 1.9 m
No. 20150-062*



Settings

Mucosa elevation

ERBEJET® 2, effect 30–60

Mucosa incision

ENDO CUT® Q, effect 2, cutting duration 3, cutting interval 3

Submucosa exposure

ENDO CUT® Q, effect 3, cutting duration 2–3, cutting interval 3–4

or SWIFT COAG®, effect 3, 70 watts

Myotomy

ENDO CUT® Q, effect 3, cutting duration 2, cutting interval 4

or SWIFT COAG®, effect 4, 70 watts

Hemostasis

FORCED COAG®, effect 2, 50 watts

References

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